



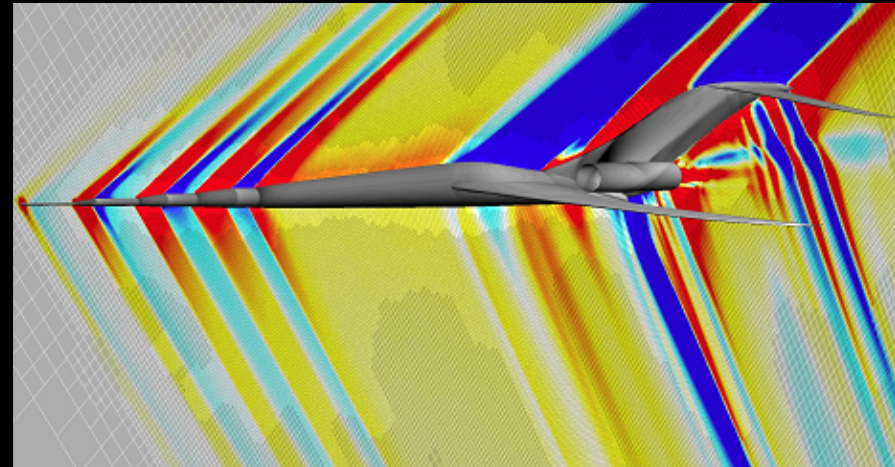
Simulation Packages Expand Aircraft Design Options

Ames Research Center

***Desktop Aeronautics
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NASA Technology

- ◆ When designing safer, more fuel-efficient, or faster aircraft, computational fluid dynamics (CFD) can predict the flow of fluids and gasses around a vehicle and its effects on performance.
- ◆ NASA developed Cart3D, a software that provides a streamlined, accurate analysis of vehicle designs.



Technology Transfer

- ◆ Through Small Business Innovation Research (SBIR) funding, Desktop Aeronautics developed a plugin to make the technology more applicable for general use.
- ◆ Desktop Aeronautics received a license to sell the Cart3D program, which was further enhanced with a graphic interface and additional computing abilities.

Benefits

- ◆ Simulations generated by Cart3D help to design subsonic aircraft, space planes, spacecraft, and high speed commercial jets.
- ◆ The program's key feature is the automated generation of the mesh, or grid, for analyzing designs, which takes seconds rather than months or years when done by hand.